

Application No.: 10/009,148
Office Action Dated: April 18, 2006
Response to Office Action Dated: May 19, 2006

REMARKS

Claims 1-9 are pending and being amended herein.

Claims 1-3 and 8 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Donovan (U.S. Pat. No. 4,523,600). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

Donovan is directed to an improved dental hygiene technique for removing plaque from human teeth wherein a loop of multifilament flossing thread is trained about fingers on opposite hands of the user and worked in the spaces between the teeth while maintained taut. The flossing loop may be joint-free and comprise many turns of a single, continuous filament, or it may be made from multifilament thread and have a joint formed by gluing, heat sealing, knotting or air splicing. The last mentioned type of loop may include at least one protruding tail which performs a mopping function during plaque removal.

The Examiner believes that Donovan discloses an elastically stretchable flossing product because the reference mentions that the threads of the product can be fabricated from polyester. However, Donovan is silent as to whether the floss is made from a polyester which is configured to be highly stretchable. It is reasonable to assume that Donovan does not disclose threads made of a highly stretchable material because there is no mention of a change in length or cross-sectional area derived from using a highly stretchable material. Moreover, the drawings do not show a change in cross-sectional area in the floss when the floss is not under tension (FIG. 1) and when the floss is in tension (FIG. 2).

Furthermore, the floss disclosed in Donovan does not disclose floss including threads being of a braid, weave or knit formation defining an abrasively acting surface. In other words, the braid, weave or knit formation itself forms the abrasively active surface. Rather, Donovan mentions that joints tying to ends of a floss together can be glued with an adhesive which can serve as an abrasive or the

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adhesive may act as a binder for incorporated abrasive particles. In other words, Donovan mentions that an additional layer of material can be placed on the threads of the floss to serve as an abrasive. This is not surprising because prior floss – like that disclosed in Donovan – have threads that are made from spinning or twisting which tends to be a relatively smooth surface. Therefore, the floss as disclosed in Donovan needs an additional layer placed on the threads in order to form an abrasively acting surface.

For an anticipation rejection to be appropriate, each and every element or limitation in a rejected claim must be disclosed in a single prior art reference use in the claim rejection. Because Donovan does not teach or suggest a tooth cleaning means comprising monofilament or multifilament threads being highly-elastically stretchable and under the effect of tensile forces so as to reduce a cross-sectional area thereof, and wherein the threads are one of a braid, weave and knit formation defining an abrasively acting surface, it cannot be maintained that Donovan anticipates claim 1. Moreover, because claims 2, 3 and 8 each ultimately depend from and thereby incorporate the limitations of claim 1, these dependent claims are not anticipated by Donovan for at least the reasons set forth for claim 1.

Claims 1, 7 and 8 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lawton (U.S. Pat. No. 1,839,486) in view of Muhler et al. (U.S. Pat. No. 3,699,979). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

Lawton is directed to a medicament carrier for use in cleaning the teeth. The cleaner and carrier is adapted to be inserted in the spaces between the teeth, and comprises fabricated strands as well as a medicament or cleaning material carried by the carrier. The Examiner cites Lawton for stating that the carrier can include strands made of rubber. However, Lawton does not disclose whether the rubber strands are configured to be highly elastically stretchable. The highly elastically stretchable nature of the claimed tooth cleaning means permits the cross-sectional

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area to be reduced for insertion between adjacent teeth while permitting the cross-sectional area to be expanded thereafter in order to abrasively and simultaneously clean the sides of the adjacent teeth.

Muhler et al. is directed to a mixture of a saliva soluble coating material and a specially defined dental polishing and cleaning agent combined with a non-wax dental floss or dental tape to produce an impregnated dental floss or dental tape. Saliva dissolves the soluble coating material when the impregnated floss or tape is used to clean and polish the interproximal surfaces of the teeth by exposing the polishing agent to direct contact with the dental surfaces. Utilization of a saliva soluble coating material thereby substantially increases the cleaning and polishing properties of the dental floss or tape containing the cleaning and polishing agent. The Examiner cites Muhler for mentioning particles of dental abrasive on the surface of the dental tape. However, Muhler does not teach or suggest threads being a braid, weave or thread defining an abrasively acting surface. Rather, Muhler mentions that additional particles of abrasive can be placed on the surface of the dental tape.

In view of the foregoing, it is respectfully submitted that Lawton and Muhler taken either alone or in combination do not teach or suggest a tooth cleaning means comprising monofilament or multifilament threads being highly-elastically stretchable and under the effect of tensile forces so as to reduce a cross-sectional area thereof, and wherein the threads are one of a braid, weave and knit formation defining an abrasively acting surface, as is recited in claim 1 of the present application. Accordingly, claim 1 is unobvious over Lawton in view of Muhler. Moreover, because claims 7 and 8 each depend from and thereby incorporate the limitations of claim 1, these dependent claims are not obvious over Lawton in view of Muhler for at least the reasons set forth for claim 1.

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Donovan (U.S. Pat. No. 4,523,600) in view of Bible et al. (U.S. Pat.

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No. 5,865,197). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

Bible et al. is directed to a dental floss for cleaning food particles and other material from between teeth. The dental floss includes a single strand of nylon material having a thickness of about 0.001 inches to about 0.003 inches and a width from about 0.025 inches to about 0.100 inches and has a tensile strength of about 31/2 pounds to about 25 pounds. The strand is extruded at relatively low temperatures which permits it to be readily colored and flavored. Further, it may be extruded into a plurality of shapes which may be chosen to enhance user comfort. The single strand of nylon material may include about 2% to about 20%, by weight, of a colorant; about 0.1% to about 3%, by weight, of a lubricant; about 0.1% to about 1%, by weight, of a plasticizer; or about 5% to about 30%, by weight, of a flavorant, fragrance, or combination of both.

The Examiner cites Bible et al. for mentioning that the dental floss strands can be multi-color. The Examiner also states that "[a] change in shape and color is generally recognized as being within the level or [sic] ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955)."

It is not clear why the Examiner cites In re Rose in support of the position that a change in shape or color is within the level of ordinary skill. In re Rose does not address changes in color or shape. Rather, the cited case is concerned with whether differences in degree and/or size are patentable distinctions. Even if In re Rose were to address color or shape, the cited case would still be irrelevant in addressing the subject matter of claim 4 which recites a tooth cleaning means wherein the threads at a connection location define an oblique cut or an oblique cut separating location. In any event, it has been demonstrated above that the disclosure of Donovan is insufficient to anticipate claim 1 from which rejected claims 4-6 each ultimately depend. It therefore follows that Donovan also contains insufficient teaching as a

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primary reference when taken either alone or in combination with Bible et al. to render obvious claims 4-6.

Claim 9 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Donovan (U.S. Pat. No. 4,523,600) in view of Standish (U.S. Pat. No. 3,838,702). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

Standish is directed to a dental floss having an improved cleaning and polishing action obtained by coating the floss with a coating agent comprising a resilient wax, polymer, or elastomer, having embedded therein a finely divided particulate polishing agent. The Examiner believes that Standish teaches dental floss being made of latex. However, Standish does not teach dental floss having monofilament or multifilament threads manufactured of latex as is recited in claim 9 of the present application. Rather, Standish merely mentions that a coating agent for the threads comprises a matrix which can include a latex adhesive. In any event, it has been demonstrated above that the disclosure of Donovan is insufficient to anticipate claim 1 from which rejected claim 9 depends. It therefore follows that Donovan also contains insufficient teaching as a primary reference when taken either alone or in combination with Standish to render obvious claim 9.

In view of the foregoing, it is respectfully submitted that amended claims 1-9 are in condition for allowance. All issues raised by the Examiner having been addressed, an early action to that effect is earnestly solicited.

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No fees or deficiencies in fees are believed to be owed. However, authorization is hereby given to charge our Deposit Account No. 13-0235 in the event any such fees are owed.

Respectfully submitted,

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